

REMARKS

The Office Action dated July 21, 2004, has been received and carefully noted. The amendments made herein and the following remarks are submitted as a full and complete response thereto.

Claims 1 and 3 have been amended. Applicant submits that the amendments made herein are fully supported in the specification and the drawings as originally filed, and therefore no new matter has been added. Accordingly, claims 1-3 are pending in the present application and are respectfully submitted for consideration.

Formal Rejection

Claims 1-3 were rejected under 35 U.S.C. § 112, second paragraph, as being indefinite. In making this rejection, the Examiner appeared to be unclear about the phrase "without scanning an entire distance range for focusing" as recited in claim 1 and the phrase "without scanning a distance range for focusing" as recited in claim 3.

Claims 1 and 3 have been amended to recite --without moving the focusing lens in a reciprocating motion around a focus point-- in place of the above phrases. Applicant submits that the amendment more clearly recite the subject matter of the claimed invention.

In particular, the present invention calculates, in one exemplary embodiment, the position of a lens by using a distance obtained from a pitch of a bar code pattern, and thereafter the focusing is carried out on the basis of the calculation. In other words, the present invention can obtain the pitch of a bar code pattern even when the picture

image is NOT in focus (i.e., before the focusing lens passes through the focus point). Given at least this feature, the present invention does not require to scan an entire distance range to automatically focus on the image. Thus, Applicant amends claims 1 and 3 with the phrase "without moving the focusing lens in a reciprocating motion around focus point" to more clearly recite this feature.

Applicant further highlights page 3, lines 6-12 of the specification describing a "pitch computing means for obtaining the pitch of the pattern marks of the leveling rod at that position on the photoelectric device which is capable of obtaining the pitch in a state before the focusing lens is focused on the leveling rod to thereby obtain a distance to the leveling rod based on the pitch obtained by the pitch computing means." (Emphasis added) Additionally, page 3, lines 18-21 of the present Specification, describes "Once the focusing has proceeded to a certain degree, it becomes possible to obtain the pitch of the pattern marks of the leveling rod even if the leveling rod is completely focused." (Emphasis added) It is submitted that disclosure highlighted above expresses that it is not necessary to move the focusing lens in a reciprocating motion around a focus point.

Accordingly, Applicant respectfully requests that the rejection be withdrawn.

Claims 1-3 Recite Patentable Subject Matter

Claims 1-3 were rejected under 35 U.S.C. § 102(b) as being anticipated by Kumagai et al. (U.S. Patent No. 5,742,378, "Kumagai"). Applicant respectfully traverses

the rejection and submits that each of these claims recites subject matter that is neither disclosed nor suggested by the cited prior art.

Claim 1 recites an automatic focusing mechanism for mounting on a measuring device comprising, among other features, pitch computing means for obtaining only the pitch of the pattern marks of the leveling rod at a position on said photoelectric device which is capable of obtaining the pitch in a state before said focusing lens is focused on the leveling rod to thereby obtain a distance to the leveling rod based only on the pitch obtained by said pitch computing means, without moving the focusing lens in a reciprocating motion around a focus point.

Claim 3 recites an automatic focusing mechanism for mounting on a measuring device comprising, among other features, pitch computing means for obtaining only the pitch of the pattern marks of the leveling rod on said photoelectric device to obtain a distance to the leveling rod based only on the pitch obtained by said pitch computing means, without moving the focusing lens in a reciprocating motion around a focus point.

It is respectfully submitted that the prior art fails to disclose or suggest at least the above-mentioned features of the Applicants' invention.

The Office Action characterized Kumagai as allegedly disclosing "pitch computing means (15 and 166; see also Figures 12 and 14) for obtaining only the pitch of the pattern marks ... to obtain a distance (see column 4, lines 20-25) based only on the pitch."

Applicant submit that Kumagai fails to disclose or suggest each and every element recited in claims 1 and 3 of the present application. In particular, it is submitted

that the linear sensor 15 together with the microcomputers 166 of Kumagai are neither comparable nor analogous to the "pitch computing means" of the claimed invention. In fact, Kumagai is completely silent on a "pitch computing means for obtaining only the pitch of the pattern marks of the leveling rod on said photoelectric device to obtain a distance to the leveling rod based only on the pitch obtained by said pitch computing means, without moving the focusing lens in a reciprocating motion around a focus point." Therefore, Applicants submit that Kumagai fails to disclose each and every element recited in claims 1 and 3 of the present application.

Moreover, to qualify as prior art under 35 U.S.C. §102, a single prior art reference must teach, i.e., identically describe, each feature of a rejected claim. As explained above, Kumagai fails to disclose or suggest each and every feature of claims 1 and 3. Accordingly, Applicant respectfully submits that claims 1 and 3 are not anticipated by nor rendered obvious by the disclosure of Kumagai. Therefore, Applicant respectfully submits that claims 1 and 3 are allowable.

As claim 2 depends from claim 1, Applicant submits that claim 2 incorporates the patentable aspects therein, and are therefore allowable for at least the reasons set forth above with respect to the independent claims, as well as for the additional subject matter recited therein.

Accordingly, Applicant respectfully requests withdrawal of the rejection.

Conclusion

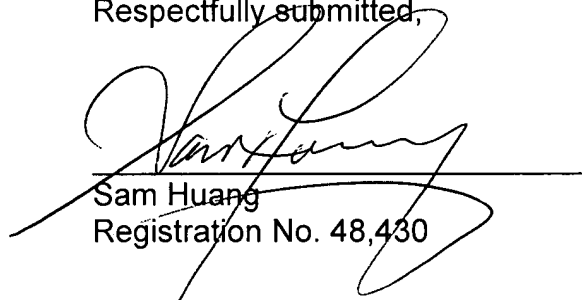
In view of the above, Applicant respectfully submits that each of claims 1-3 recites subject matter that is neither disclosed nor suggested in the cited prior art.

Applicant also submits that the subject matter is more than sufficient to render the claims non-obvious to a person of ordinary skill in the art, and therefore respectfully request that claims 1-3 be found allowable and that this application be passed to issue.

If for any reason, the Examiner determines that the application is not now in condition for allowance, it is respectfully requested that the Examiner contact the Applicant's undersigned attorney at the indicated telephone number to arrange for an interview to expedite the disposition of this application.

In the event this paper has not been timely filed, the Applicant respectfully petitions for an appropriate extension of time. Any fees for such an extension, together with any additional fees that may be due with respect to this paper, may be charged to counsel's Deposit Account No. 01-2300 referencing Attorney Docket No. 101136-00013.

Respectfully submitted,



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Enclosures: Petition for Extension of Time (3 months)